



THE PRESIDENCY  
REPUBLIC OF SOUTH AFRICA

# Just Energy Transition Investment Plan (JET IP)

## Update to the PCC

29 September 2023

# Purpose

The purpose of this submission is to brief the PCC on

- ❑ JET IP Projects Management Unit (PMU) work in progress in priority areas
- ❑ Additional international pledges received in support of the JET IP
- ❑ Preparation of the *JET IP Implementation Plan*

# JET IP work in progress in priority areas

|  | Priority areas                                       | Work in progress   |
|--|--|--|
|    | <b>Electricity Infrastructure: Transmission grid</b> | Private investment models identified, analysed, recommended. Also proposing that JET IP concessional loans be available to Eskom to scale up transmission capacity for renewable energy.   |
|    | <b>Repurposing, repowering, decommissioning</b>      | Decommissioning schedule is under review by government. JET IP PMU focusing on enabling the ACT IP: to front-load repurposing, repowering and local development initiatives with workers and communities, ahead of decommissioning. Lessons learnt from Komati.                              |
|    | <b>Mpumalanga Just Transition</b>                    | Alignment being established with Province on institutional and governance arrangements, and national JET IP support to economic diversification initiatives. The JET IP PMU is establishing a JET Financing Facility to match donor grants to projects – key focus on support to Mpumalanga. |
|    | <b>New Energy Vehicles</b>                           | Focus on expediting investments in public transport electric vehicles, e-mobility for logistics fleets, charging infrastructure, and support to development of the battery industry supply chains.   |
|   | <b>Green Hydrogen</b>                                | A portfolio of private sector GH2 programmes and projects are developing, supported by various international networks, with coordination at IDC.   |
|  | <b>Skills</b>  | Extensive stakeholder engagement in recent months to devise a roadmap for coordination, planning and execution of flagship initiatives.  |
|  | <b>Municipalities</b>                                | Extensive stakeholder engagement to identify next steps on distribution investment options, reviews of applicable conditional grants, capacity building initiatives, energy access, energy efficiency.   |
|  | <b>Monitoring &amp; Evaluation</b>                   | Impacts, Medium-term outcomes, Short-term outcomes defined per focus area. Indicators of performance also being defined for the JET IP Implementation Plan. Alignment with DFFE, PCC, NT, DPME.  |



## ■ Transmission infrastructure

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|--------------------------------|---|
| <b>Scale of need</b>           | SA needs to build approximately 1,400 km of new transmission lines per year over the next ten years. This is ten times the average number of km Eskom has built over the past three years. Over the next 5 years, an investment of at least R138 billion will be required.  |
| <b>Stakeholders' feedback</b>  | Transmission is a widely agreed priority capital investment for security of electricity supply and for the scale-up of renewable energy generation for the energy transition.   |
| <b>Funds available</b>         | Several of the concessional and commercial loans in the IPG offer of \$8.5 billion can be earmarked for transmission grid expansion but funding flows are subject to the structure of the financing option chosen.  |
| <b>Challenges</b>              | <ul style="list-style-type: none"><li>• Eskom is unable to scale-up investment in the transmission grid to the levels required.</li><li>• Implications of Eskom debt restructuring conditions for use of loans</li></ul>  |
| <b>Work in progress</b>        | National Treasury and the JET IP PMU are completing a study on off balance-sheet Transmission investment models.  |
| <b>Implementation approach</b> | <ul style="list-style-type: none"><li>• Work with Eskom, DPE, NT and Ministry for Electricity</li><li>• Coordinate and consolidate various studies underway and financial instruments/mechanisms offered.</li><li>• Recommendations will be made for the optimal use of JET IP concessional and commercial loans, and the further crowding-in of private sector capital for large-scale investment in Transmission.</li></ul> |



# Repurposing and repowering at power plants reaching end of economic and operational life

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| <b>Scale of Need</b>           | <p>An investment of about \$2.6 billion will be required to support communities, workers and future repurposing, repowering and decommissioning of power plants reaching end of economic and operational life. The bulk of this investment must happen years before any decommissioning. Delayed decommissioning need not delay socio-economic development, economic diversification, repowering and repurposing.</p>  |
| <b>Stakeholders' feedback</b>  | <ul style="list-style-type: none"> <li>• Forward planning and implementation of repowering investments.</li> <li>• Early investments must be made to support workers and communities.</li> <li>• Affected workers and communities must have a direct stake in repurposing and repowering projects.</li> </ul>  |
| <b>Funds available</b>         | <p>Highly concessional climate finance of \$500 million from the Climate Investment Fund (CIF) is expected to directly catalyse 5.3 times as much from MDBs, country counterparts, and private investors</p>   |
| <b>Challenges</b>              | <ul style="list-style-type: none"> <li>• Delays in scheduled retiring of plants creates uncertainty in relation to re-powering time-frames</li> <li>• Inability to channel the IPG concessional loans directly to Eskom because of debt relief conditions and National Treasury's constraints for issuing sovereign guarantees has stalled planning.</li> </ul>  |
| <b>Work in progress</b>        | <ul style="list-style-type: none"> <li>• National Treasury commissioned an independent technical review of all coal plants, followed by an assessment of the financial and GHG emissions implications of delaying decommissioning. This will inform government decisions on the decommissioning schedules.</li> <li>• An options study to structure off-balance sheet financing mechanisms to enable the necessary investments is nearing completion.</li> </ul> |
| <b>Implementation approach</b> | <ul style="list-style-type: none"> <li>• Finding solutions to retain the highly concessional CIF loan financing for this component of the JET IP.</li> </ul>   |



# ■ Mpumalanga Just Transition

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| <b>Scale of Need</b>           | The JET IP estimates that R60,4bn is needed over 5 years to address to support communities and diversify the Provincial economy into new growth opportunities.   |
| <b>Stakeholders' feedback</b>  | <ul style="list-style-type: none"> <li>• Front-loading interventions must address real and valid needs and fears of affected communities and workers</li> <li>• Blended finance is a key enabler to reduce the cost of capital for new business ventures and infrastructure</li> </ul>   |
| <b>Funds available</b>         | <ul style="list-style-type: none"> <li>• Significant grant component earmarked for social and skills development</li> <li>• Also opportunity to leverage corporate grants – both Corporate Social Investment (CSI) and Environmental &amp; Social Development (ESD) spend of over R45bn p/annum.</li> <li>• Opportunity to leverage impact investing fund managers operating in the Mpumalanga region.</li> </ul>  |
| <b>Challenges</b>              | <ul style="list-style-type: none"> <li>• Community and worker concerns about the social and economic benefits of the Just Energy Transition</li> <li>• Donor grants, corporate CSI/ESD, and blended finance capital have not historically been focused on Mpumalanga</li> <li>• Uncertainty by donors on where grant funds should be directed for optimal social and economic impact.</li> </ul>   |
| <b>Work in progress</b>        | <ul style="list-style-type: none"> <li>• A JET Finance Facility (clearing house) to match targeted Just Transition projects with appropriate financing instruments and provide project preparation support where needed is proposed.</li> <li>• Leveraging the concessional funding to front-end just transition interventions for communities.</li> <li>• Mapping the impact investing ecosystem in Mpumalanga to identify case studies and blended finance opportunities.</li> <li>• Working with Provincial government to support its Just Transition work and an Mpumalanga JET Portfolio Register.</li> </ul> |
| <b>Implementation approach</b> | <ul style="list-style-type: none"> <li>• Build the JET Portfolio Register with Mpumalanga Provincial Government</li> <li>• Operationalise a 'clearing house' mechanism to match appropriate financing to JET-focused projects.</li> </ul>  |



# ■ Economic diversification and industrialisation for a just transition

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| <b>Scale of Need</b>           | The JET IP estimates that an investment of R3.25bn is needed over 5 years to industrialise local and inclusive renewable energy value chains  |
| <b>Stakeholders' feedback</b>  | Consensus on the importance of industrial policy tools in achieving a just transition<br>Important to align electricity planning, industrial planning and the JET-IP  |
| <b>Funds available</b>         | <ul style="list-style-type: none"> <li>• IPG commercial and guarantee funds is a potential source of finance (USD 2.8bn)</li> <li>• Significant amounts of local and international capital can be unlocked with appropriate industrial incentives and procurement visibility</li> </ul>   |
| <b>Challenges</b>              | <ul style="list-style-type: none"> <li>• Competitive global supply chain</li> <li>• Ensuring Structuring to ensure localisation objectives can leverage industrial investments</li> <li>• Local skills development gap is material</li> </ul>   |
| <b>Work in progress</b>        | <ul style="list-style-type: none"> <li>• The DMRE's South African Renewable Energy Masterplan (SAREM) in final stages of drafting and consultation. The plan sets out catalytic pillars to building a localised renewable energy value chain that is inclusive. It also sets out implementation steps and includes reference to implementation partners.</li> <li>• Aligning the JET IP and SAREM roadmap over the relevant time period (2023-2027) will help leverage potential funding</li> <li>• Further work to be done on the Just Transition in the automotive and green hydrogen value chains</li> </ul> |
| <b>Implementation approach</b> | <ul style="list-style-type: none"> <li>• The relevant chapter in the JET IP Implementation plan is based on the DMRE's SAREM report and is aligned to it, thereby providing stakeholders with visibility on objectives, timelines and implementation partners.</li> </ul>   |



## ■ Municipal infrastructure and capacity

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| <p><b>Scale of Need</b></p>           | <p>The JET IP estimates a financing need of R319bn over 5 years, with the bulk (R273bn) being for electricity infrastructure upgrading (smart grids), the distribution maintenance backlog, and EV requirements. Balance is for electrification access, capacity building, affordable access, and a review of the municipal revenue model.</p>   |
| <p><b>Stakeholder' feedback</b></p>   | <p>Municipalities vary widely in their ability to design, finance, build, and operate grids that meet future requirements. Flexible solutions are needed that will support high-capacity municipalities to get going, while ensuring that less-capable municipalities are not left behind (spatial equity in development). All require support.</p>  |
| <p><b>Funds available</b></p>         | <ul style="list-style-type: none"> <li>• Some (relatively small) existing fiscal funding could address some of these needs by increasing the efficacy of current programmes, most notably the INEP and the Free Basic Electricity (FBE) grant.</li> <li>• Some of the concessional and commercial loans available could be earmarked for distribution grid expansion. This will be subject to structuring appropriate financing models.</li> </ul>   |
| <p><b>Challenges</b></p>              | <ul style="list-style-type: none"> <li>• Many municipalities have no capacity to borrow, and little capacity to manage the complex energy transition.</li> <li>• Innovation is needed to support low governance municipalities. To exclude them will exacerbate inequality.</li> <li>• Lack of fiscal space for increased budget allocations or guarantees to local government.</li> <li>• The current local government electricity revenue model has been designed to support municipal revenue, not the requirements of universal energy access, energy diversification, distributed generation and smart grids.</li> <li>• Relatively little work has been done to date on the details of the municipal energy transition.</li> </ul> |
| <p><b>Work in progress</b></p>        | <p>Work is underway done in respect of the municipal wheeling framework. Various donor-funded capacity building initiatives are in progress and need to be assessed for efficacy.</p>  |
| <p><b>Implementation approach</b></p> | <p>To co-produce a Municipalities JET IP Implementation Plan that has the greatest prospect of addressing the municipal energy transition challenges. Co-production is essential to ensure that the multiple complexities are surfaced, and that there is buy-in for solutions from a wide range of stakeholders.</p>  |



## ■ Skills for JET

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| <b>Scale of Need</b>           | <p>The JET IP estimates the skills investment need at R2,65 billion over 5 years, focused on establishing a skills hub for the future of work; pilot skills development zones in Mpumalanga, Eastern Cape, Northern Cape; and mobilising allocations to JET from existing public and private post-school education and training (PSET) funding per annum.</p>  |
| <b>Stakeholders' feedback</b>  | <p>Stakeholders criticised an under-prioritisation of skills development in the JET IP in terms of (1) the estimated level of investment required and (2) the lack of coherence and clarity regarding the transition skills required for the JET. They proposed that the JET IP should contain a coherent skills development plan that is integrated into the existing overall skills funding landscape.</p>   |
| <b>Funds available</b>         | <p>The draft JET IP grants register shows that approximately R2.6 billion of IPG and additional pledged JET IP grants are earmarked for skills investment. About R1,3bn of this sum has been programmed to date. Government funding requires assessment to determine where it can be aligned for JET skills development.</p>   |
| <b>Challenges</b>              | <ol style="list-style-type: none"> <li>1) Building a pipeline of competencies and capabilities in the skills base (including upskilling existing workers in the energy and manufacturing sectors) in alignment with anticipated skills needs.</li> <li>2) Unclear and poor data regarding anticipated transition skills demanded in future - required to ultimately inform a coherent skills development strategy.</li> <li>3) Lack of clarity regarding the roles of various skills development institutions in implementing skills for JET</li> <li>4) Poor levels of basic social infrastructure undermining educational outcomes.</li> </ol> |
| <b>Work in progress</b>        | <ul style="list-style-type: none"> <li>• Stock-take and mapping of existing skills landscape (supply and demand side) and</li> <li>• Assessment of existing skills development system (institutional arrangements) to inform key points of alignment and intervention to facilitate the flow of funds and development of appropriate programmes and projects.</li> </ul>   |
| <b>Implementation approach</b> | <p>In collaboration with key implementing institutions and role-players, the PMU is collating</p> <ul style="list-style-type: none"> <li>- Guiding principles for JET IP skills development implementation</li> <li>- The roadmap for JET IP skills development implementation</li> <li>- Building partnerships with key role players and implementing institutions</li> </ul>   |



# ■ New Energy Vehicles

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| <b>Scale of Need</b>           | <ul style="list-style-type: none"> <li>The JET IP estimates that R128.1 billion is needed over 5 years</li> <li>The DTIC estimates that in phase 1, investment of R68bn is needed over 5 years to transition the local vehicle production value chain from Internal Combustion Engines (ICE) to NEVs; and that a further R133bn is required in phase 2 to support consumer transition.</li> </ul>  |
| <b>Stakeholders feedback</b>   | <p><b>Automotive supply chain</b> OEMs require incentives to support exports of NEVs and grow local demand.</p> <p><b>Public transport</b> is a key focus for social partners – a reduction or exemption on duties and taxes is required to support adoption. Taxes and duties currently make up about 54% of the final price of an EV bus or taxi.</p> <p><b>Mobility abatement</b> requires early-stage funding for proof-of-concept and pilot SME projects (grants, technical assistance, training).</p>  |
| <b>Funds available</b>         | <ul style="list-style-type: none"> <li>Some IPG grants and concessional loans could be used if NEV programmes are structured appropriately.</li> <li>SA concessional funds: DBSA (Buses &lt;USD 182m); IDC (manufacturing, infrastructure, B2B, social economy), SA SME fund</li> <li>SA govt existing: APDP (ditc), Public Transport Network Grants (PTNG) R7bn pa, Taxi Recap program (DOT), Uyilo e-mobility (DSI)</li> <li>Private sector is investing in logistics fleet conversions.</li> </ul>  |
| <b>Challenges</b>              | <ol style="list-style-type: none"> <li>SA OEM production is at risk from July 2025 due to Euro7 emissions regulations and 2035 banning of ICE. This impacts circa 500 000 jobs, 4.3% GDP contribution, 12.5% SA exports</li> <li>Need for national, integrated approach to NEV JET</li> <li>Market segmentation requires a differentiated approach for investment in Public Transport, Mobility, and Auto Supply Chain.</li> <li>Need for procurement systems to support economies of scale.</li> </ol>  |
| <b>Work in progress</b>        | <ul style="list-style-type: none"> <li>DTIC green paper: phase 1 automotive industry NEV plan and vehicle component manufacturing, phase 2 local consumption transition.</li> <li>DTIC is now finalizing the phase 1 incentive package with National Treasury</li> <li>City of Cape Town, GABS and a Bus OEM are working on a bus localisation project for &lt;100 buses pa</li> <li>DBSA launched an EV bus programme to support cities in Gauteng</li> <li>IDC is working on an EV mobility fund/programme to support investments for adoption and localisation</li> </ul> |
| <b>Implementation approach</b> | <p>The JET IP Implementation Plan takes a programmatic approach to fundable investments, proposing that SA DFIs (DBSA and IDC) take lead roles in partnering with JET IP funders to facilitate investments in bus and other fleet conversions and charging infrastructure.</p>   |

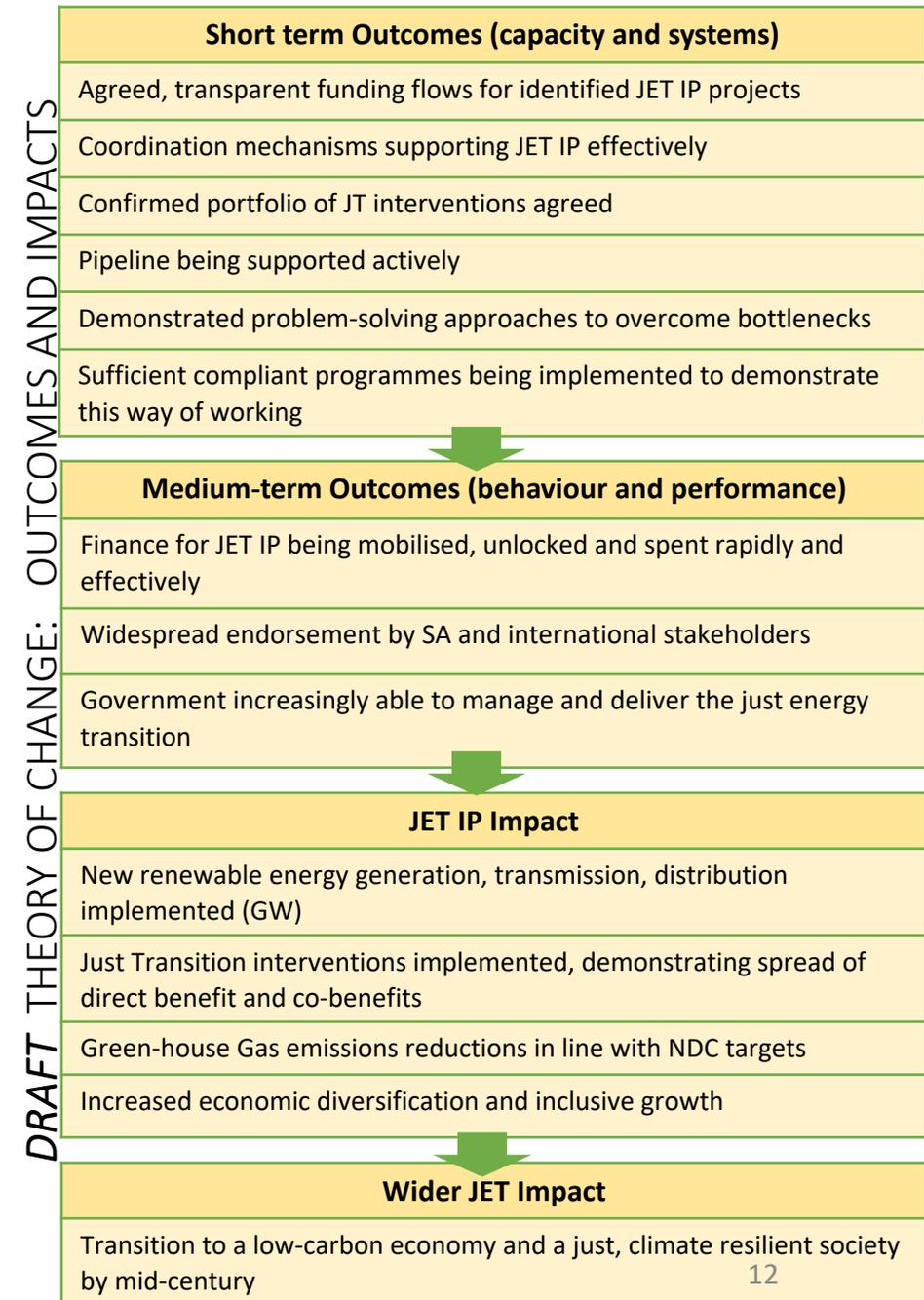


# ■ Green Hydrogen

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|--------------------------------|--|
| <b>Scale of Need</b>           | The JET IP estimates that R319bn needs to be invested in the sector from 2023 to 2027  |
| <b>Stakeholders' feedback</b>  | <ul style="list-style-type: none"> <li>• The production of GH2 (scale of renewable energy needed) must not compete with energy security</li> <li>• Critical to ensure a Just Transition and to show its potential role in industrialization, including in its use as a feed stock for heavy industry (iron, steel, Sasol) to support decarbonization and long term sustainability</li> <li>• Estimated to create up to 650 000 new jobs</li> </ul> |
| <b>Funds available</b>         | <ul style="list-style-type: none"> <li>• IPG KfW €22m grant to IDC for GH2</li> <li>• IPG KfW/IDC: €200m programme for GH2 Project Development</li> <li>• Netherlands - SA-GH2 fund: \$ 1bn managed by Climate Fund Managers</li> <li>• Private sector investments in GH2</li> <li>• Potential for other concessional finance to be mobilised</li> </ul>   |
| <b>Challenges</b>              | <ul style="list-style-type: none"> <li>• Limited grant funding for pre-feasibility and feasibility development costs</li> <li>• Long timelines for enabling infrastructure to be planned, financed, built (port, high-voltage lines, pipelines)</li> <li>• Ability to secure firm, long-term off-take commitments (locally and globally)</li> <li>• High cost of capital vs competing markets</li> </ul>   |
| <b>Work in progress</b>        | <ul style="list-style-type: none"> <li>• GH2 commercialisation strategy is being driven by IDC and DTIC.</li> <li>• 19 projects currently in pre-feasibility and feasibility stages (9 gazetted as Strategic Infrastructure Projects)</li> </ul>   |
| <b>Implementation approach</b> | Recommendations will be made on how to unlock concessional funds so that they can flow to key project developments, key inter-dependencies to address (infrastructure and regulation), and an implementation roadmap for the next four years.  |

# ■ Monitoring and evaluation

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| <b>JET IP Register</b>         | The Register is being established to provide a transparent record and tracking mechanism of all funding allocated to JET IP programmes and projects. Data gathering and verification is in progress.  |
| <b>Theory of change</b>        | Developed JET IP PMU Theory of Change (TOC) and using this to develop Key Performance Indicators (KPIs).  |
| <b>M&amp;E framework</b>       | Being developed based on the TOC. Agree cross-government indicators and higher level KPIs with PCC, DFFE, DMRE, DPME, NT.   |
| <b>Challenges</b>              | Engagements to build to a common view on higher level TOC and KPIs<br>Time to work on specific milestones which are agreed across organs of state   |
| <b>Work in progress</b>        | <ul style="list-style-type: none"> <li>• With PCC, DFFE, DPME, DMRE, NT to identify higher-level KPIs</li> <li>• Identifying what data is available for monitoring these KPIs, and from where.</li> </ul>   |
| <b>Implementation approach</b> | <ul style="list-style-type: none"> <li>• Tracking the pipeline of proposed and funded JET IP programmes and projects</li> <li>• Developing agreed outcomes per portfolio</li> <li>• Developing detailed planning and tracking systems for delivery of the Implementation Plan</li> <li>• Developing a learning system which involves stakeholders in rapid evaluations to inform ongoing decision-making</li> <li>• Planning for full evaluations after every 3 years.</li> </ul> |



## International Partners Group (IPG) (2021) and additional (2023) pledges to JET IP

| US\$ millions         | Grants / TA  | Highly concessional climate funds | Concessional Loans     | Commercial Investments | Country counter-parts | Total (source)  |
|-----------------------|--------------|-----------------------------------|------------------------|------------------------|-----------------------|-----------------|
| ACT - CIF             | 50           | 450                               | 900                    | 875                    | 330                   | 2 605           |
| EU/EIB                | 30           | -                                 | 1 000                  | -                      | -                     | 1 030           |
| France                | 2.5          | -                                 | 1 000                  | -                      | -                     | 1 002.5         |
| Germany               | 198          | -                                 | 770                    | -                      | -                     | 968             |
| UK                    | 24           | -                                 | 1 300 (AfDB guarantee) | 500                    | -                     | 1 824           |
| US                    | 20.15        | -                                 | 0                      | 1 000                  | -                     | 1 020.15        |
| <b>Total IPG</b>      | <b>324.7</b> | <b>450</b>                        | <b>4 970</b>           | <b>2 375</b>           | <b>330</b>            | <b>8 449.7</b>  |
| Denmark               | 23.2         | -                                 | 67                     | 74.6                   | -                     | <b>165</b>      |
| Netherlands           | 169          | -                                 | TBD                    | *1 000                 | -                     | <b>1 169</b>    |
| <b>Total IPG Plus</b> | <b>192.2</b> | <b>-</b>                          | <b>67</b>              | <b>1 074.6</b>         | <b>-</b>              | <b>1 333.8</b>  |
| Spain                 | 15           | -                                 | 250                    | 1 750                  | 100                   | <b>2 115</b>    |
| <b>Total</b>          | <b>531.9</b> | <b>450</b>                        | <b>5 287</b>           | <b>5 199.6</b>         | <b>430</b>            | <b>11 898.5</b> |

\* Indicative amount for GH2 Fund under independent Fund Managers

# JET IP Implementation Plan

- The JET IP Implementation Plan is currently being compiled, based on the feedback received from the extensive stakeholder consultations conducted by the PCC on the JET IP in early 2023. It is also informed by the work done by the PMU with multiple stakeholders during the year, and by inputs received through focus group sessions held on key elements of the JET IP in August and September.

The JET IP Implementation Plan 2023-2027 is a roadmap that enables South Africa to take targeted and aligned strides towards meeting its decarbonisation commitments in a manner that will deliver just outcomes for the people affected by the energy transition. It defines short- and medium-term outcomes for each Portfolio of the JET IP and designates key institutions to lead specific areas of the work. Their roles will be to crowd in sector stakeholders and expertise, co-create solutions, align initiatives, mobilise finance, push for results, and monitor outcomes.

- **The draft *JET IP Implementation Plan* will be presented to PCC Commissioners in an open on-line session scheduled for 18 October 10:00 – 13:00.**
- It will thereafter be submitted to the JET IP Government Steering Committee for review at end October and recommendation to the JET IP Inter-Ministerial Committee in November for submission to Cabinet.